

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080289 A2

(51) International Patent Classification⁷: **C04B 28/00**

(21) International Application Number:
PCT/IB2005/000319

(22) International Filing Date: 9 February 2005 (09.02.2005)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
MI2004A000226 12 February 2004 (12.02.2004) IT

(71) Applicant (for all designated States except US): **ITAL-CEMENTI S.P.A.** [IT/IT]; Via Camozzi, 124, I-24121 Bergamo (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **COSTA, Umberto** [IT/IT]; Via Marzanica 15/A, I-24124 Bergamo (IT). **CUCITORE, Roberto** [IT/IT]; Via Lombardia 6, I-24124 Bergamo (IT).

(74) Agent: **GERLI, Paolo**; Notarbartolo & Gervasi S.p.A., Corso di Porta Vittoria, 9, I-20122 Milano (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **HIGH-RESISTANCE POURABLE MORTARS WITH HIGH FLUIDITY**

(57) Abstract: Described herein are new cementitious mortars with a high degree of fluidity and high final resistance. The mortars contain water, a hydraulic binder, a pozzolanic substance (finely ground slag), a fluidifier and/or superfluidifier, a setting regulator, and aggregates having a specific granulometric distribution. The aggregates are made up of three highly monogranular fractions (A, B, C), and a fourth fraction (D) having a low monogranularity. The new mortars described herein have values of fluidity higher, by approximately 70%, than those of mortars produced with traditional aggregates. The increase in fluidity is obtained without increasing the water/cement ratio and without increasing the amount of fluidifiers/superfluidifiers present. The mortars produced according to the invention may be used to advantage in all applications in which it is required to associate a high degree of fluidity and a high final mechanical resistance, both in compression and in flexure.

WO 2005/080289 A2